

In the Claims

Please amend the claims of this application as follows. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) An integral antenna and radio unit for a wireless communication device including a printed circuit board (PCB), comprising:

a radio module comprising a first RF connection to a PCB, the radio module being secured to the PCB;

wherein said radio module comprises a radio chip and a shielding cover extending over said radio chip; and

an antenna module comprising a second RF connection to the PCB, said antenna module being removably secured to said radio module;

wherein said antenna module comprises a non-conductive carrier having an upper end and a lower end, said lower end of said carrier having a recesses area formed therein which receives said radio module therein, and an antenna positioned on said upper end of said carrier having contact pins extending therefrom forming the second RF connection to the PCB,

wherein said radio module and said antenna module are not directly RF connected.

2. (cancel)

3. (cancel)

4. (currently amended) The integral antenna and radio unit of claim 1
3 further comprising a cover that extends over said antenna module.

5. (currently amended) The integral antenna and radio unit of claim 1
3 wherein said cover is releasably to said carrier.

6. (original) The integral antenna and radio unit of claim 5 wherein said cover is slidably mounted on said carrier.

7. (currently amended) The integral antenna and radio unit of claim 1 3 wherein said upper end of said carrier has a recessed area formed therein and wherein said antenna module is received in said recessed area in said upper end of said carrier.

8. (currently amended) The integral antenna and radio unit of claim 1 3 wherein said antenna comprises a PIFA.

9. (currently amended) The integral antenna and radio unit of claim 1 3 wherein said antenna module is snapped onto said carrier.

10. (currently amended) The integral antenna and radio unit of claim 9 wherein said carrier is snapped onto said radio module.

11. (original) The integral antenna and radio unit of claim 1, wherein said second RF connection is formed by at least one contact pin.

12. (original) The integral antenna and radio unit of claim 1, wherein said second RF connection is formed by at least a feed contact and a shorting contact.

13. (original) The integral antenna and radio unit of claim 1, wherein said first RF connection is formed by at least one ball array pad.

14. (original) The integral antenna and radio unit of claim 1, further comprising a non-conductive carrier separating said radio module and said antenna module.

15. (original) The integral antenna and radio unit of claim 14, wherein said carrier comprises a dielectric material.

16. (original) The integral antenna and radio unit of claim 14, wherein said carrier comprises an insulating material.

17. (currently amended) An integral antenna and radio unit for a wireless communication device including a printed circuit board (PCB), comprising:

a radio module comprising a first RF connection to a PCB, said radio module being secured to the PCB;

wherein said radio module comprises a radio chip and a shielding cover extending over said radio chip;

an antenna module comprising a second RF connection to a PCB, said antenna module being removably secured to said radio module;

wherein said antenna module comprises a non-conductive carrier having an upper end and a lower end, said lower end of said carrier having a recesses area formed therein which receives said radio module therein, and an antenna positioned on said upper end of said carrier having contact pins extending therefrom forming the second RF connection to the PCB, and

means for prohibiting a direct RF connection between said radio module and said antenna module.

18. (original) The integral antenna and radio unit of claim 17, wherein the means for prohibiting comprises at least an RF insulating material.

19. (original) The integral antenna and radio unit of claim 17, wherein the means for prohibiting comprises at least an RF dielectric material.

20. (original) The integral antenna and radio unit of claim 17, wherein said antenna module comprises a carrier; the carrier forming the means for prohibiting.